

ABSTRACT OF THE DISCLOSURE

Discrete semiconductor packages are described. The discrete package contains: a lead frame pad which has a first surface and a second surface, wherein the second surface which is the opposite surface of the first surface; leads connected to a side of the lead frame pad; a semiconductor chip attached to the first surface of the lead frame pad; a ceramic layer that directly contacts the second surface of the lead frame pad; and a molding material that entirely encapsulates the lead frame pad, the semiconductor chip, and a portion of the ceramic layer, except for a portion of the leads and the second surface of the ceramic layer. Methods for making such discrete packages are also described.